

**REMARKS/ARGUMENTS****STATUS OF CLAIMS**

Claims 1-7 are now pending in this application.

**REJECTION OF CLAIMS UNDER 35 U.S.C. § 112, 1ST AND 2ND PARAGRAPHS**

Claims 1-7 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description as the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

The Examiner maintains that the present application does compare wavefront aberration amount with a table prepared beforehand. This is based upon the Examiner's contention that paragraph [0030] discloses that the transmitted wavefront of the temporary lens 2 obtained by the temporary molding is measured by an interferometer, and the amount of deviation of the wavefront (wavefront aberration amount ( $\Delta$ )) from a reference value is calculated. In addition, paragraph [0050] discloses that it is preferred that a plurality of wavefront aberration amounts ( $\Delta_1, \Delta_2, \Delta_3, \dots$ ) be measured in a plurality of divided areas in the single wavefront when the tendency (curving) of wavefront aberration differs from a simple curve. In particular, the Examiner interprets the reference value, or a plurality of reference values, as constituting a table prepared beforehand.

Claims 1-7 also have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

The Examiner refers to the description at paragraph [0030] of the present application that "discloses the wavefront aberration amount (delta) is determined by comparing the measured

wavefront to a to a reference value" and paragraphs [0050] of the present application that discloses that "it is preferable to determined a plurality of wavefront aberration amounts". The Examiner then asserts "The reference value, or plurality of reference values, constitutes a table prepared beforehand. It is indefinite how the calculation of the correction wavefront aberration amount does not involve comparing a wavefront amount to the reference value or values (table) prepared beforehand."

The rejections are respectfully traversed.

Independent claim 1 delineates, *inter alia*:

...  
measuring a wavefront of thus molded first temporary optical device *and calculating a wavefront aberration amount*;  
*calculating a correction wavefront aberration amount compensating for the wavefront aberration amount*;  
designing by using at least the plurality of optical parameters a second temporary optical device for optimizing a form so as to exhibit a wavefront aberration with the correction wavefront aberration amount; and  
designing, according to the optimized form of the second temporary optical device, a normal molding die for molding a normal optical device, wherein  
*calculating a correction wavefront aberration amount does not include comparing wavefront aberration amount with a table prepared beforehand.*

Paragraph [0030] of the present application describes:

[0030] The transmitted wavefront of the temporary lens 2 obtained by the temporary molding is measured by an interferometer, and *the amount of deviation of the wavefront (wavefront aberration amount ( $\Delta$ )) from a reference value is calculated*. The wavefront aberration amount ( $\Delta$ ) is determined from the deviation of interference fringes from their linearity or the like as shown in the interference fringe image of (3).

Paragraph [0032] of the present application describes:

**[0032]** According to the wavefront aberration amount ( $\Delta$ ) calculated in the third step, a *correction wavefront aberration amount (- $\Delta$ ) which can compensate for the wavefront aberration amount ( $\Delta$ ) is calculated*. (Emphasis added)

Paragraph [0041] and [0042] of the present application describe:

**[0041]** Thus, according to the wavefront aberration amount ( $\Delta$ ) temporarily molded by the temporary die 1, a correction wavefront aberration amount (- $\Delta$ ) which can compensate for the wavefront aberration amount ( $\Delta$ ) is calculated, and a lens which can generate the correction wavefront aberration amount (- $\Delta$ ) is optically designed again in this embodiment. *This can yield a normal die 11 which can favorably deal with the occurrence of unexpected aberrations and finally mold a lens having quite favorable aberrations.*

**[0042]** *Such effects are substantially hard to obtain when simply determining the amount to adjust a die by using a table according to a part of optical parameters.* (Emphasis added)

The above-referenced paragraphs clearly support that the *correction wavefront aberration amount (- $\Delta$ )* is calculated and this calculation does not include comparing the wavefront aberration amount with a table. It should be noted that the *correction wavefront aberration amount (- $\Delta$ )* is different from the *wavefront aberration amount ( $\Delta$ )* that is referred to in paragraphs [0030] and [0050] of the present application. Independent claim 1 delineates that “calculating a *correction wavefront aberration amount* does not include comparing wavefront aberration amount with a table prepared beforehand”.

Applicant submits that claims 1-7 comply with the written description requirement as they are described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. In addition, claims 1-7 recite the invention with the degree of precision and particularity required by the statute. Therefore withdrawal of the rejections of claims 1-7 under 35 U.S.C. § 112, first and second paragraphs, is respectfully solicited.

**REJECTION OF CLAIMS UNDER 35 U.S.C. § 102 and § 103**

I. Claims 1-7 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Kawakita (Japanese Patent Publication No. 2002-096344) or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Kawakita in view of Davis et al. (USPN 3,434,781).

The rejections are respectfully traversed.

Kawakita discloses determining an amount to adjust the metal mold (correction wavefront aberration amount) to correct for the wavefront aberration deviation by comparing the wavefront aberration deviation with a table (e.g., Table T of Fig. 4) that has been prepared beforehand. Therefore, claims 1-7 are patentable over Kawakita.

Davis et al. discloses at column 9, lines 54-60, to which the Examiner refers:

The preceding eight considerations or criteria in their order of priority (and as applied to two specific Rx lens values) also appear in a convenient tabulated form at the left side of the bar graph charts of FIGS. 6 and 7, and a convenient group of selected values for tolerances for the above criteria is given in the following table:

Clearly, displaying reference values of lens aberrations in graphical form is still a type of table (a graphical table). Therefore, even if the above description were used to modify Kawakita to display the reference values in graphical form, calculating a *correction wavefront aberration amount*, as disclosed in Kawakita, would still include “comparing wavefront aberration amount with a table prepared beforehand”. Therefore, Claims 1-7 are patentable over Kawakita and Davis et al.

II. In view of the above, claims 1-7 are patentable over Kawakita and Davis et al., considered alone or in combination, and their allowance is respectfully solicited.

## **CONCLUSION**

In view of the above, Applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Edward J. Wise (Reg. No. 34,523) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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